



## OPSD BIOS ENGINEERING

Intel Corporation, 5200 NE Elam Young Parkway  
Hillsboro, OR 97124-6497

**DATE:** November 06, 2002

### About This Release

- EA81520A.86A.0039.P21.0211061753
- 815 Video BIOS 6.2 Production Version 2313
- ICH2 PXE 2.1 Build 83, Intel Boot Agent 4.1.0.8

### Features/Errata Fixed in This Release

#### P21-0039

- Fixed issue where some Celeron Processor (1.1GHz and 1.4GHz) reported as Pentium Processor.
- Fixed issue where Hard Disk is missing from BIOS boot priority table after system is first power up from CMOS corruption.

#### P20-0038

- Fixed issue where boot order would become corrupted when the boot device configuration changed.
- Added new Processor BIOS Update for Pentium(R) III Family.

#### P19-0037

- Added workaround for Win98SE and ME issue where the default Microsoft PS/2 mouse driver does not allow the mouse to wake the system from S3.
- Added work around for fail on TCPIP Ping wake from S3.
- Added a manual switch in BIOS Maintenance mode to toggle ISA Enable Bit (Enabled/Disabled)
- Added 48 bit LBA (large drive support for HDDs over 131GB)
- Fix issue where PS/2 and USB keyboards become unresponsive in BIOS when left unattended for a while.
- Added Intel Boot Agent 4.1.0.8.
- Fixed boot block fault tolerance test failure.

#### P18-0034

- Fixed issue where BIOS incorrectly detects Micron MT4LSDT1664AG-13EB1 single-sided PC133 modules as being two-sided.
- Added new feature for password protection.
- Program ISA Enable bit to 0 by default.

#### P17-0031

- Fixed issue where system doesn't boot to legacy floppy when ARMD devices excluded from the boot list and the first IDE device available to the system is ARMD.
- Fixed issue where there were APM errors with the resume timer.
- Fixed a problem where certain AGP video cards did not work after S3 resume.
- Change BIOS option "Wake on LAN from S5" to "LAN Wake Capabilities (S5)"

#### P16-0030

- Updated to Split-PXE 2.1 Build 83 and Intel Boot Agent 4.0.19
- Fixed issue where certain USB Mass Storage devices were hanging the system in POST.
- Fixed issue where onboard IDE controller device PCI registers were getting programmed incorrectly during jumper recovery.
- Fixed issue where PCI devices not functional when a bridge card installed in the system.
- Added a prompt to the POST screen to boot from the network by pressing F12.
- Fixed the cache line size for PCI BUS Masters.

#### P15-0028

- Fixed an issue where system won't detect AIMM display cache card.

- Fixed USB device wakeup from S4 issue in WinXP.

#### P14-0026

- Added IOAPIC Support.
- Supported 100MHz FSB 0.13u Celeron processor.
- Enabled 512K recognition for new Pentium III processor.
- Fixed S3 to S4 transition issue.
- Fixed Lightning 200 AGP card issue.
- Fixed the issue of Reset Config Data question in setup not being reset to No after being set to Yes and system rebooting.
- Added codes to avoid faults boot to the network in manufacturing mode.
- Updated to Split-PXE 2.0 Build 83.
- Fixed issue where system won't enter S3 when IOAPIC is disabled.
- Fixed an issue where system won't go to S1 when the BIOS setting is changed from S3 to S1.
- Fixed issue that system hangs up at POST 0F2h intermittently.
- Fixed issue that system hang at A4 when memory configuration is 3-2-3, 3-3-2

#### P13-0021

- Modified support for Cypress Clock Chip for EA-2/FV boards if LAN is not down.

#### P13-0020

- Added support for Cypress Clock Chip for EA-2/FV boards.
- Fixed intermittent boot failures to 29160 SCSI card.
- Fixed problem with CNR/LAN cards resuming from S4/S5.
- Fixed issue where pressing keys during Option ROM scan hangs the system.
- Changed manufacturing mode defaults so that BIOS defaults will be loaded on the first boot after manufacturing mode is disabled.

#### P12-0019

- Added support for CNR1.1.
- Removed 1133Mhz Pentium® III setup option from BIOS Setup menu.
- Added logic to block 1133Mhz Pentium® III processors.

#### P11-0017

- Added new Processor BIOS Update for Pentium(R) III Family.
- Made "Language" setup item non-editable when user setup access level is set to "View Only".
- Added logic to block unsupported processors.

#### B-0016

- Updated SMBIOS data structures.
- Added new Pentium III (R) processor support to SMBIOS.
- Changed PCI buffer strength.
- Passwords are no longer updated when custom defaults are loaded.
- Removed global reset to address the S3/SIO USB issue.

#### P10-0015

- Fixed WHQL unreported I/O test failure after S3.
- Fixed issue where if IDE is disabled, Device Manager shows yellow bang.

#### P09-0014

- Updated 815 Video BIOS to Video BIOS 6.2 Production Version 2313
- ACPI S1 is now default.

#### P08-0013

- Modified to additionally update RSDT OEM Table ID for Easton2-T and Fayetteville-T
- Reverted to Video BIOS 6.0A Production Version 2269
- Added new Processor BIOS Update for Pentium(r) III B0 Step
- Fixed Tualatin hang on Fayetteville-T and Easton2-T Fab G

#### P07-0011

- Fixed problem where after resuming from S3 and shutdown to MS-DOS USB keyboard would not work.
- Fixed problem where WHQL suspend test would hang on resume from S1.
- Removed buffer strength changes made in P03-0006 and modified RCOMP algorithm instead.

#### P06-0010

- Banner Change only.

#### B-0009

- Modified to use ICH2 GPI 13 to differentiate crystal/no crystal on LAN SKUs.
- Modified SMBUS block write algorithms to clear the SECOND\_TO\_STS bit in the TCO2\_STS register in the ICH2 as per spec update.
- Added support for displaying the maximum UDMA mode supported for auto-typed IDE drives in BIOS SETUP.
- Corrected translations for Wake on LAN, Wake on PME help strings.  
Added boot sector write protection help and translations.  
Added maintenance mode strings. Corrected some English misspellings.
- Fixed issue where the Unattended Start password must first be entered to unlock the keyboard so that the Setup password could be entered.
- Added BBS Runtime function support to the BIOS. For more information on BBS runtime functions, please read "BIOS Boot Specification Version 1.01".
- Fixed the issue of the Not Installed string for Drive Installed question in BIOS setup not being translated.
- Cypress clock chip support added.
- Added USB hub support for SIO with necessary added delay.
- ACPI S3 is now default.
- EA2/FV and EA2-T/FV-T are now using exactly the same BIOS.

#### P04-0007

- Modified for 1133 MHz and Tualatin support.
- Added new Processor BIOS Update for Pentium(r) III D0 Step
- Freed up SIO GPI20 for use to differentiate EA2 and EA2-U. Used FWH GPI LAN down bit to differentiate between 14.8 MHz clock and 28 MHz crystal instead of SIO GPI20.
- Updated 815 Video BIOS to Video BIOS 6.2 Production Version 2313

#### P03-0006

- Fixed message for 4 or more rows of 133 MHz DIMMs.
- Modified buffer strength for configuration of 2 single sided DIMMs and 1 double-sided Dimm.

#### P02-0004

- Fixed ACPI S3 resume hang.
- Removed IR selection from SETUP

#### P01-0003

- Banner Change only.

#### P-0001

- Update Setup Power Menu to dynamically display Wake On LAN and also updated PCI Configuration Menu to reflect proper number of slots.
- Update ACPI OEM\_ID strings in DSDT and RSDT.
- Update port connector strings for SMBIOS
- Fixed USB keyboard corruption or loss of 1<sup>st</sup> character when using DOS 6.22/Win98 SE startup disk.
- Fixed failure with ACFGXREF test.
- Updated Express BIOS Update to latest version

- Modified algorithm that writes to clock chip in procedure that turns off unused pci clocks
- Temporary workaround for bug in Intel Active Monitor driver by clearing status of SMBUS Controller HOST Status register, just before INT 19
- Modified strings that were accidentally updated for testing.
- Disabled Midi and joystick in SIO
- Put in fixes for 40/80 pin IDE connector identification

#### B-0002

- Added message to ask user if he wants current SDRAM configuration  
To default to 100 MHz
- Removed code erroneously setting GP20 to an output
- Modified clock generator chip block output algorithm.
- Added support to SMBIOS to indicate proper number of PCI slots according to SKU of board used.
- Updated copyright string to 2001.
- Fixed problem where Language choice question was removed under certain circumstances.
- Modified IR to default to half duplex.
- Updated to latest string translations
- Fixed issue where upon entry to ACPI S3 state from S0 it would immediately return to S0.

#### B-0001

- Initial Beta Release.